

FIG. 1

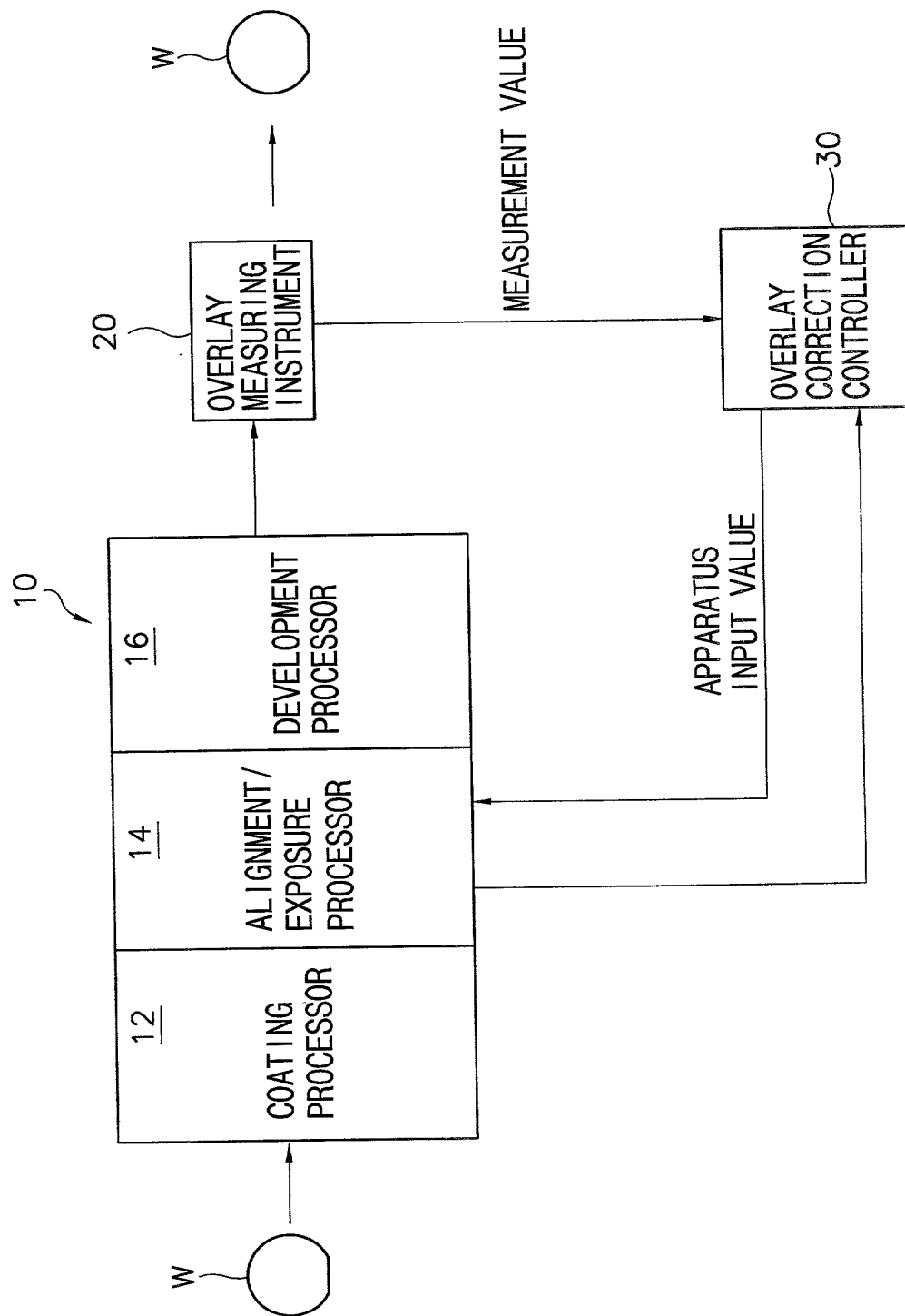


FIG. 2

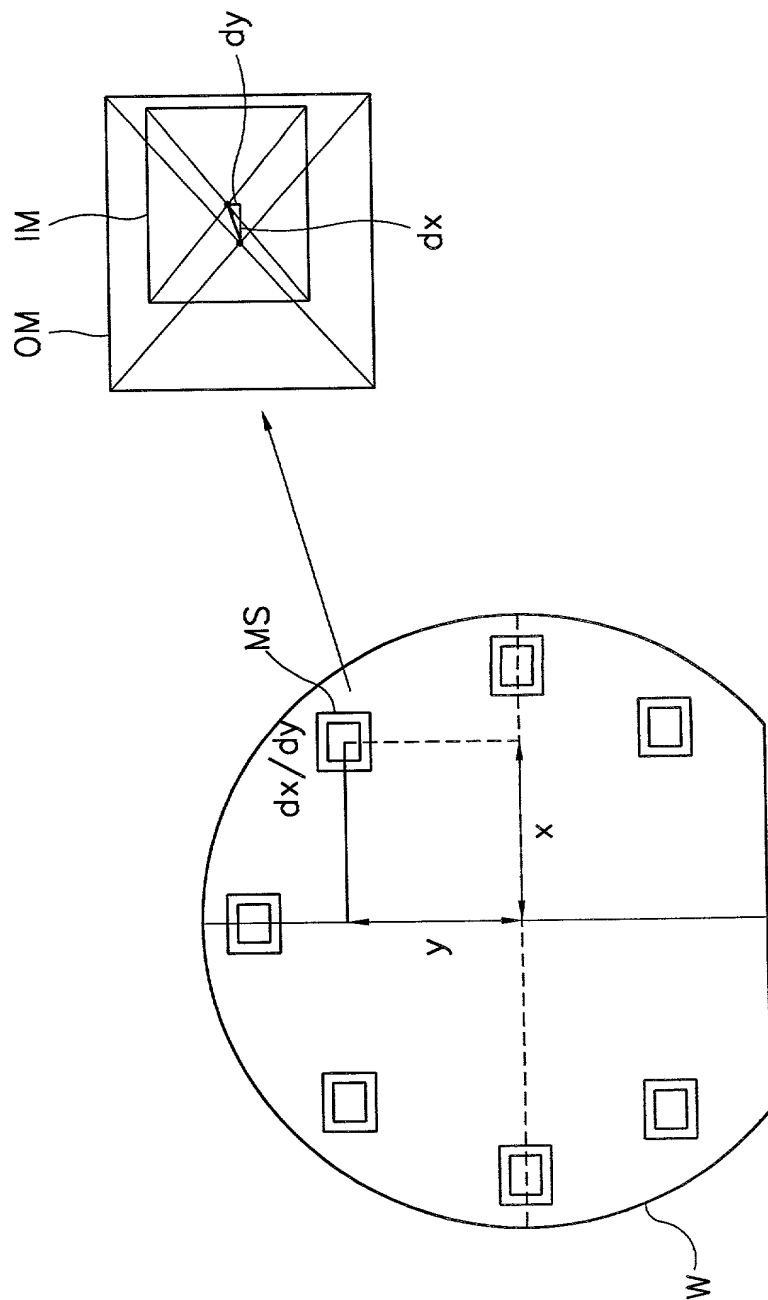


FIG. 3

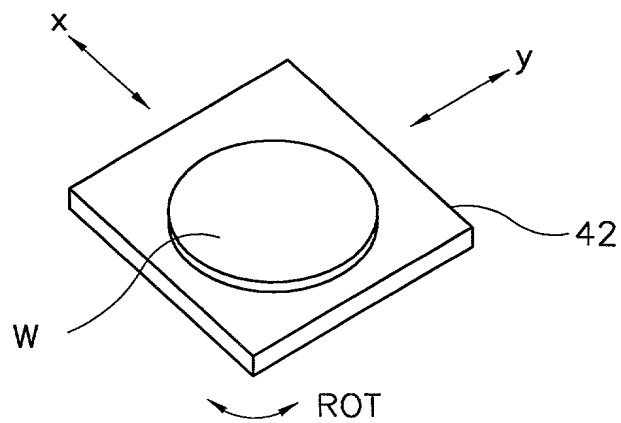
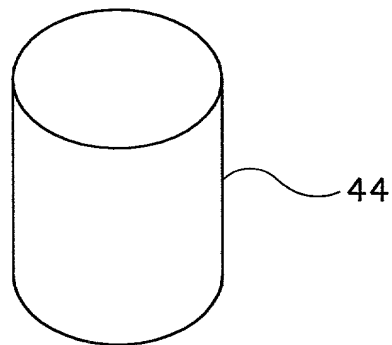
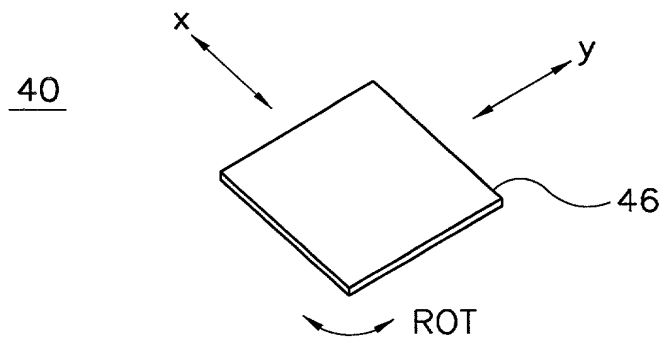


FIG. 4

MEASURING TIME
LOT ID
OF-X
OF-Y
SC-X
SC-Y
ORT
W-ROT
RED-X
RED-Y
ROT-X
ROT-Y

FIG. 5

GENERATING TIME			
LOT ID			
FWD OF-X	RET OF-X	NN OF-X	IN OF-X
OF-Y	OF-Y	OF-Y	OF-Y
SC-X	SC-X	SC-X	SC-X
SC-Y	SC-Y	SC-Y	SC-Y
ORT	ORT	ORT	ORT
W-ROT	W-ROT	W-ROT	W-ROT
RED-X	RED	RED	RED
RED-Y			
ROT-X	ROT	ROT	ROT
ROT-Y			

FIG. 6

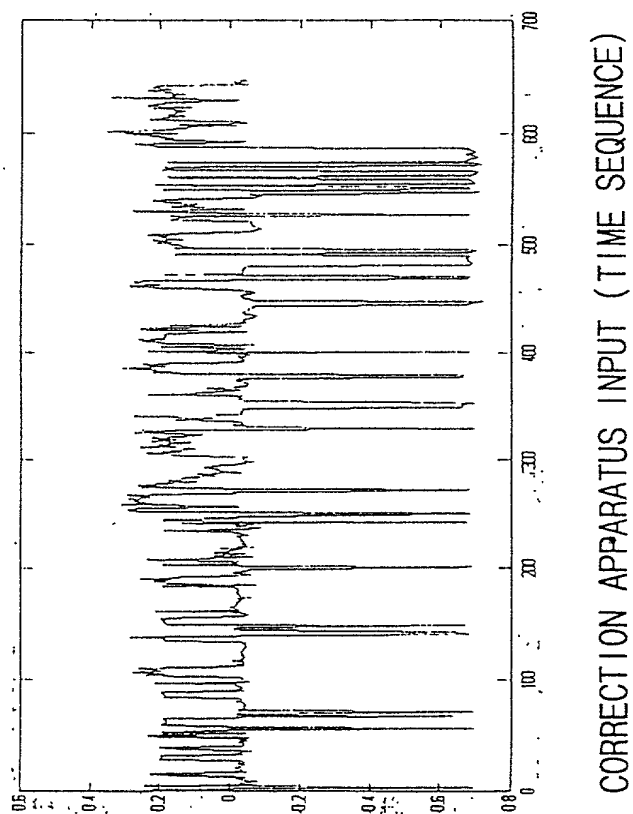


FIG. 7

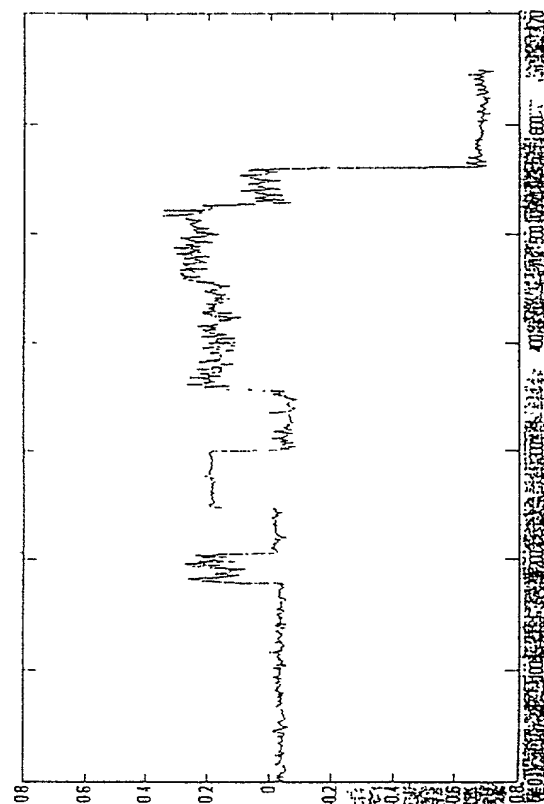
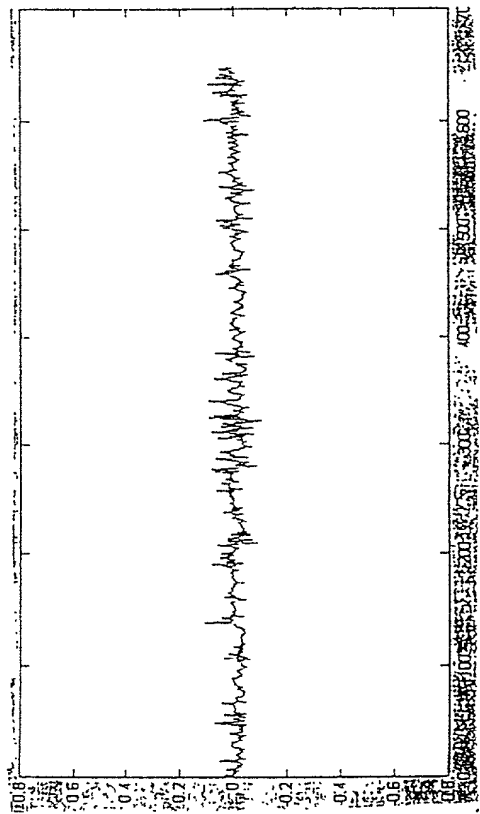
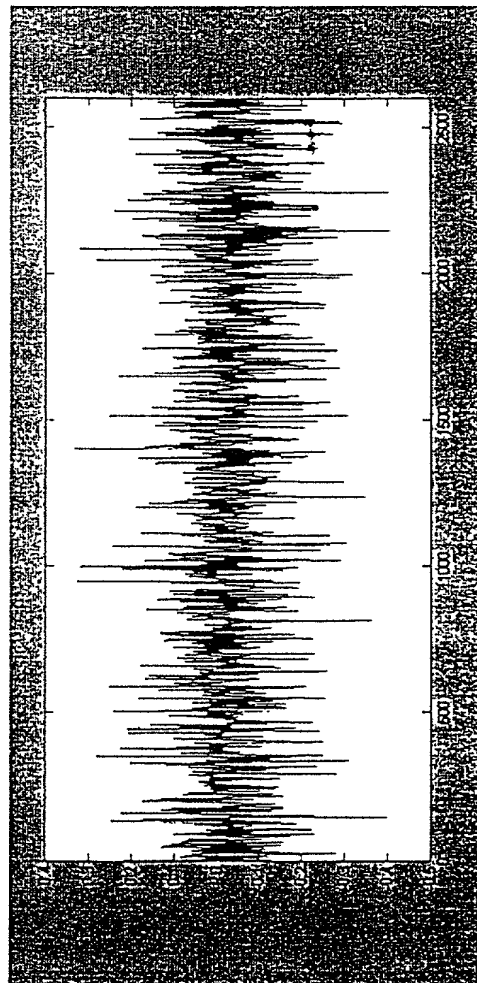


FIG. 8



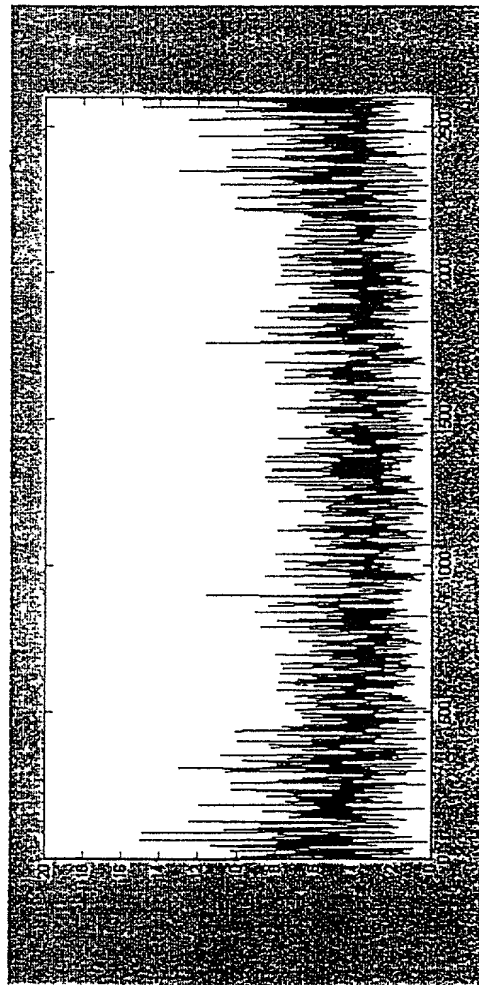
CORRECTION APPARATUS INPUT AFTER SUBTRACTING
MEAN VALUE PER IDENTICAL HISTORY

FIG. 9



$x(n)$ OF SAMPLE APPARATUS 1 WITH RESPECT TO OFFSET-X

FIG. 10



FREQUENCY SPECTRUM OF $x(n)$

FIG. 11

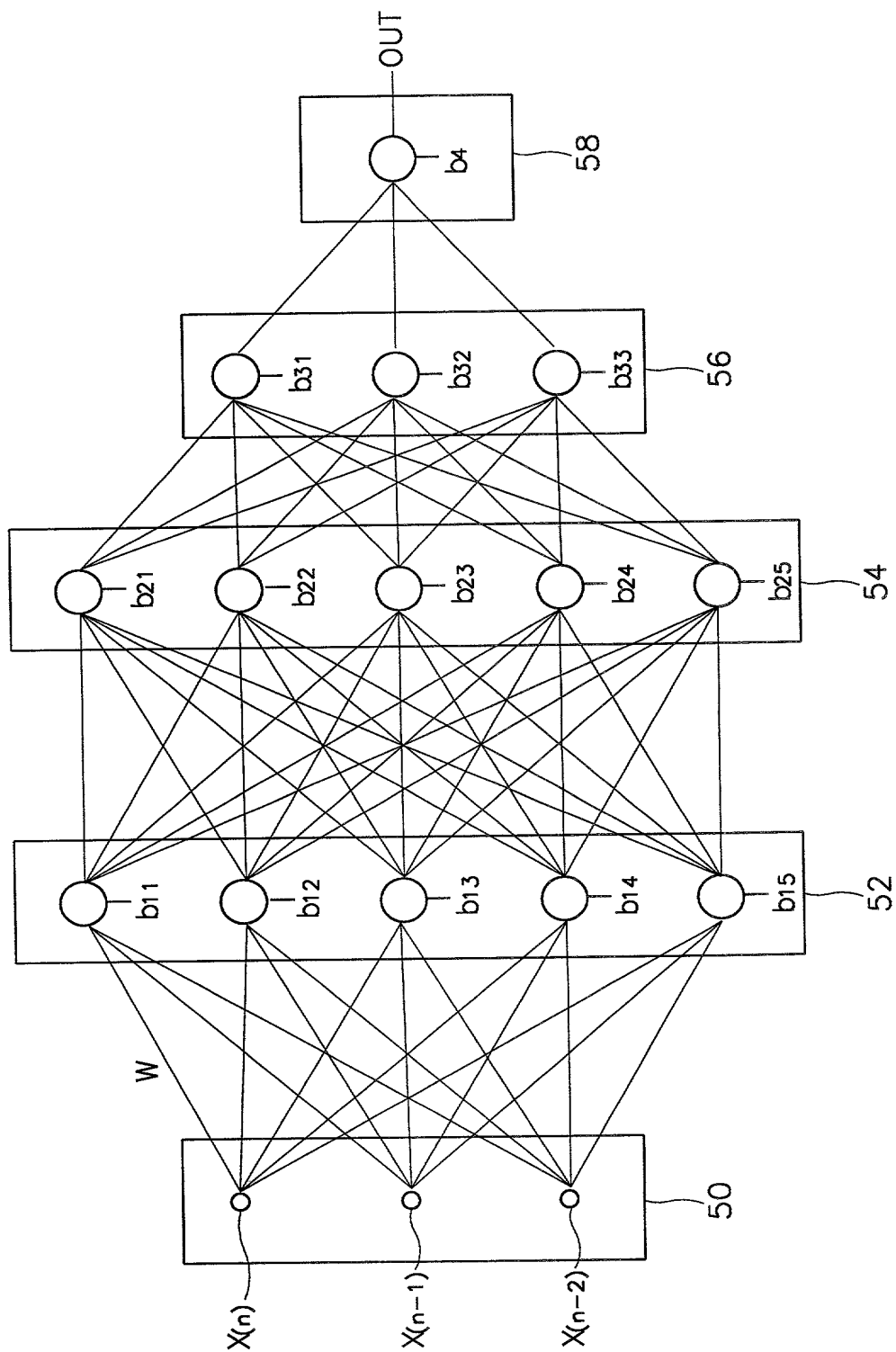


FIG. 12

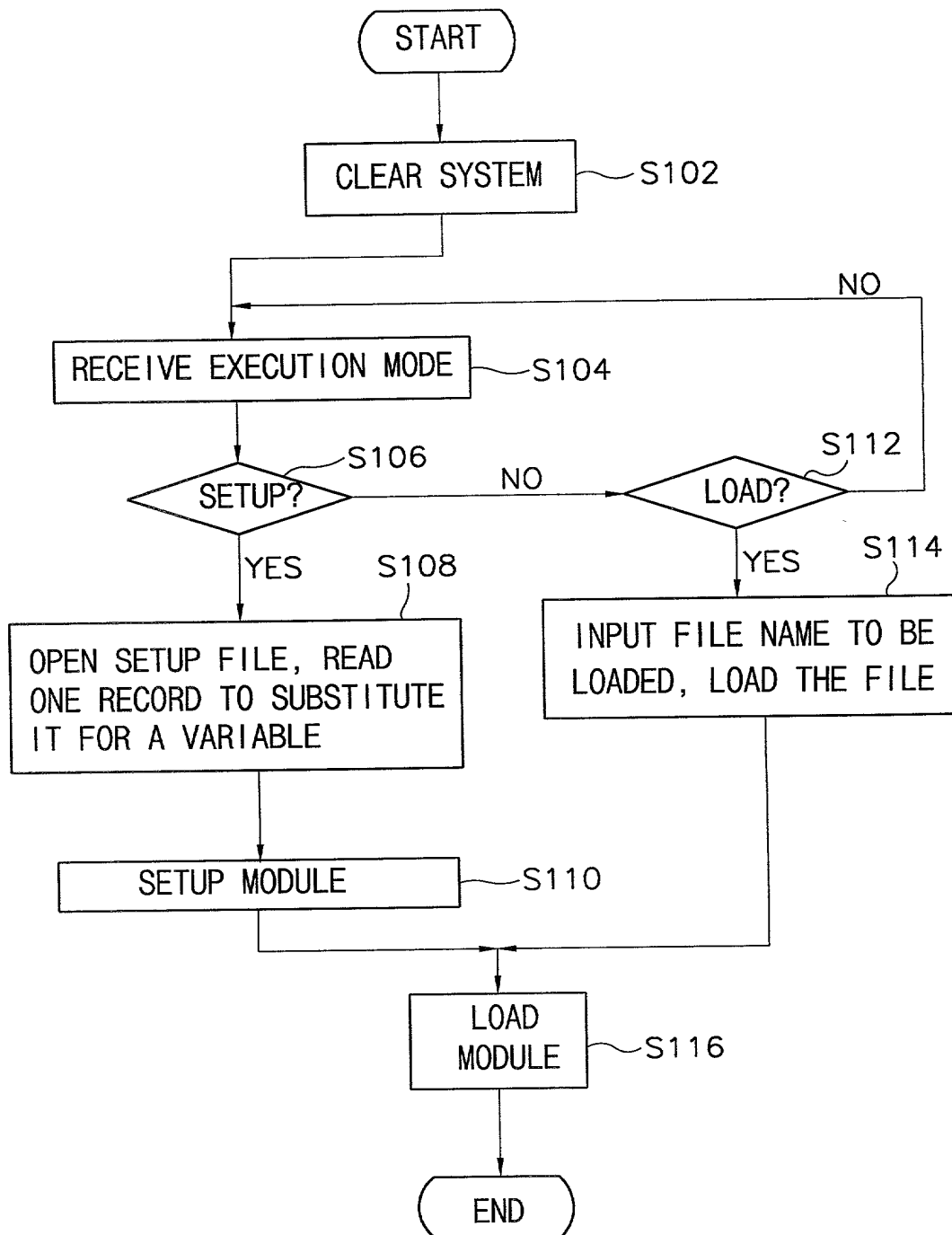


FIG. 13A

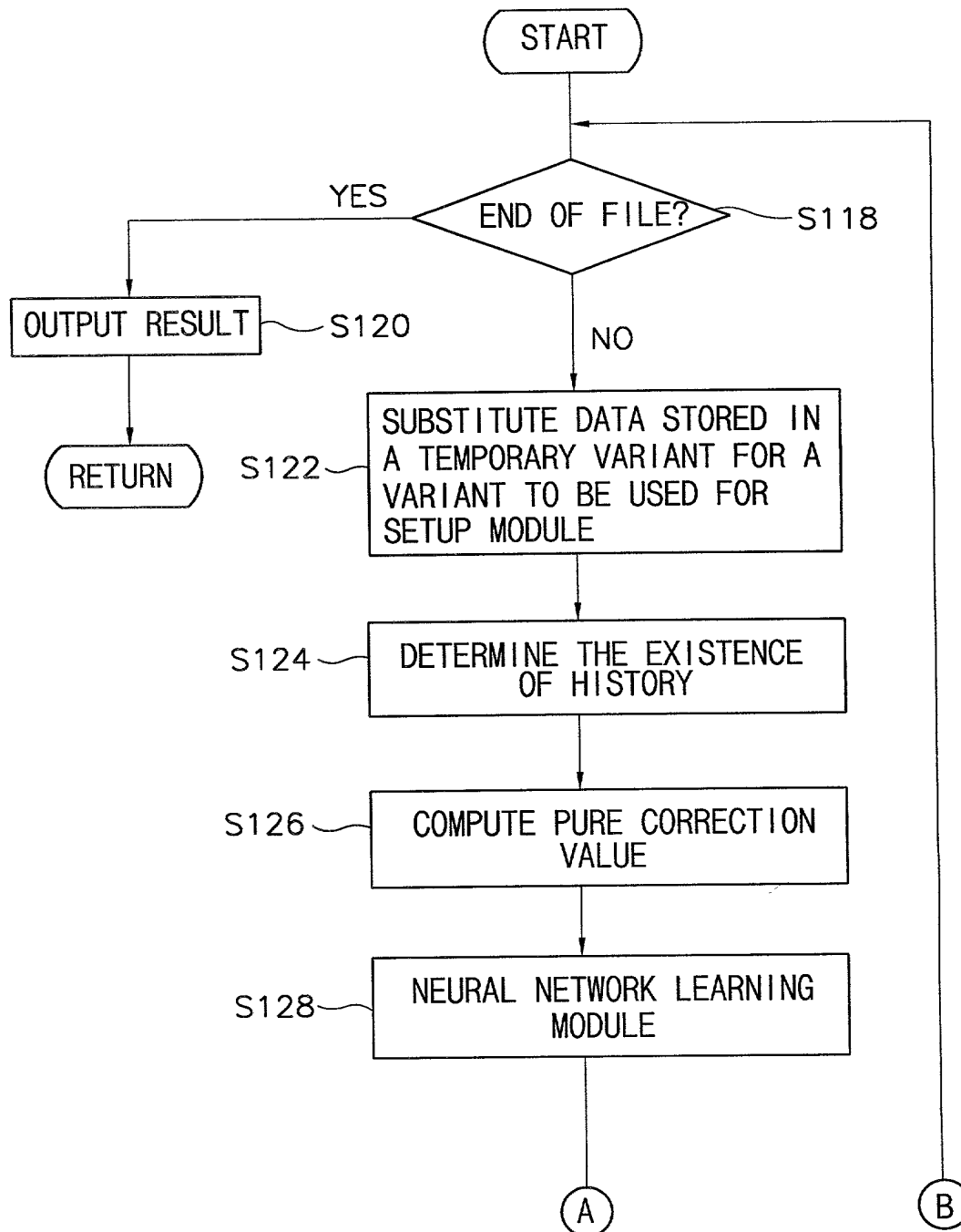


FIG. 13B

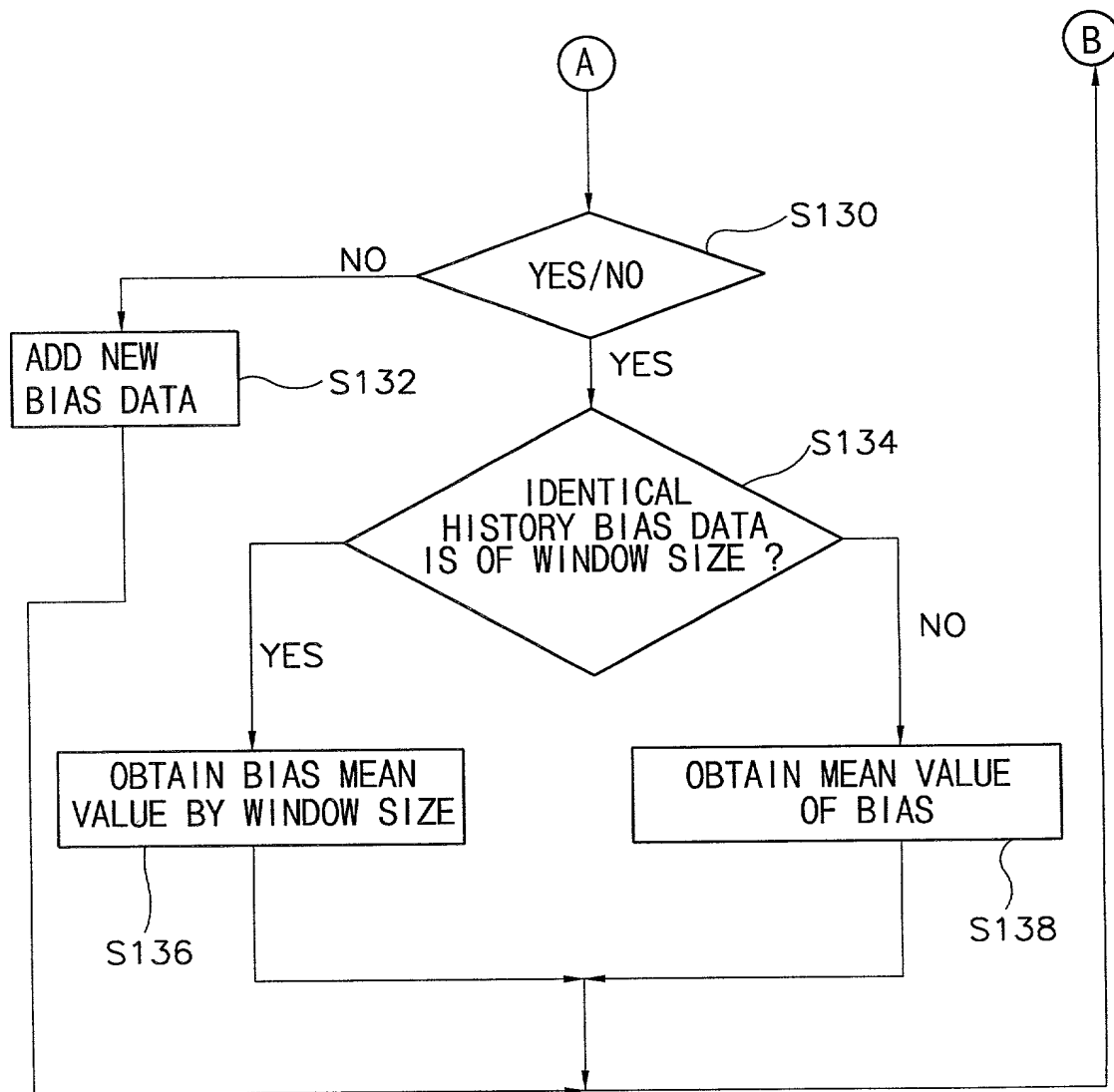


FIG. 14

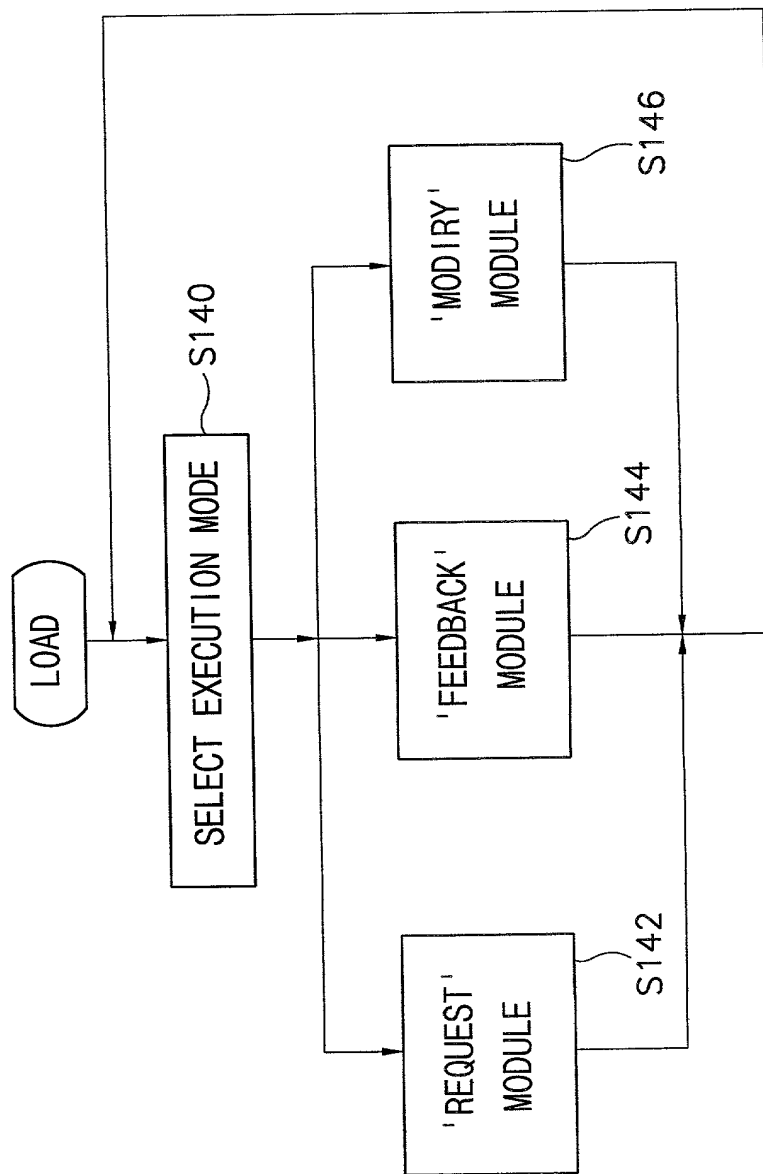


FIG. 15

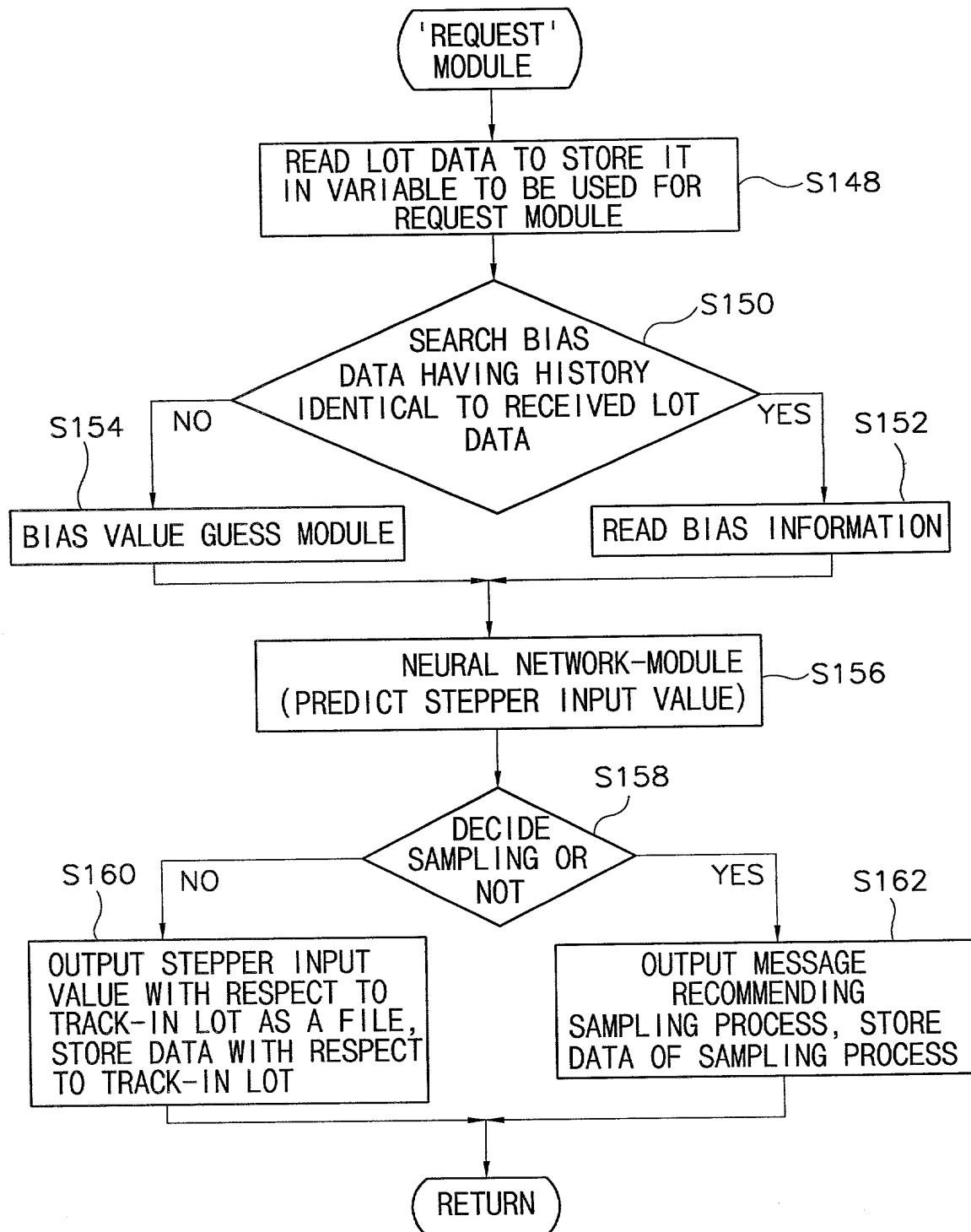


FIG. 16

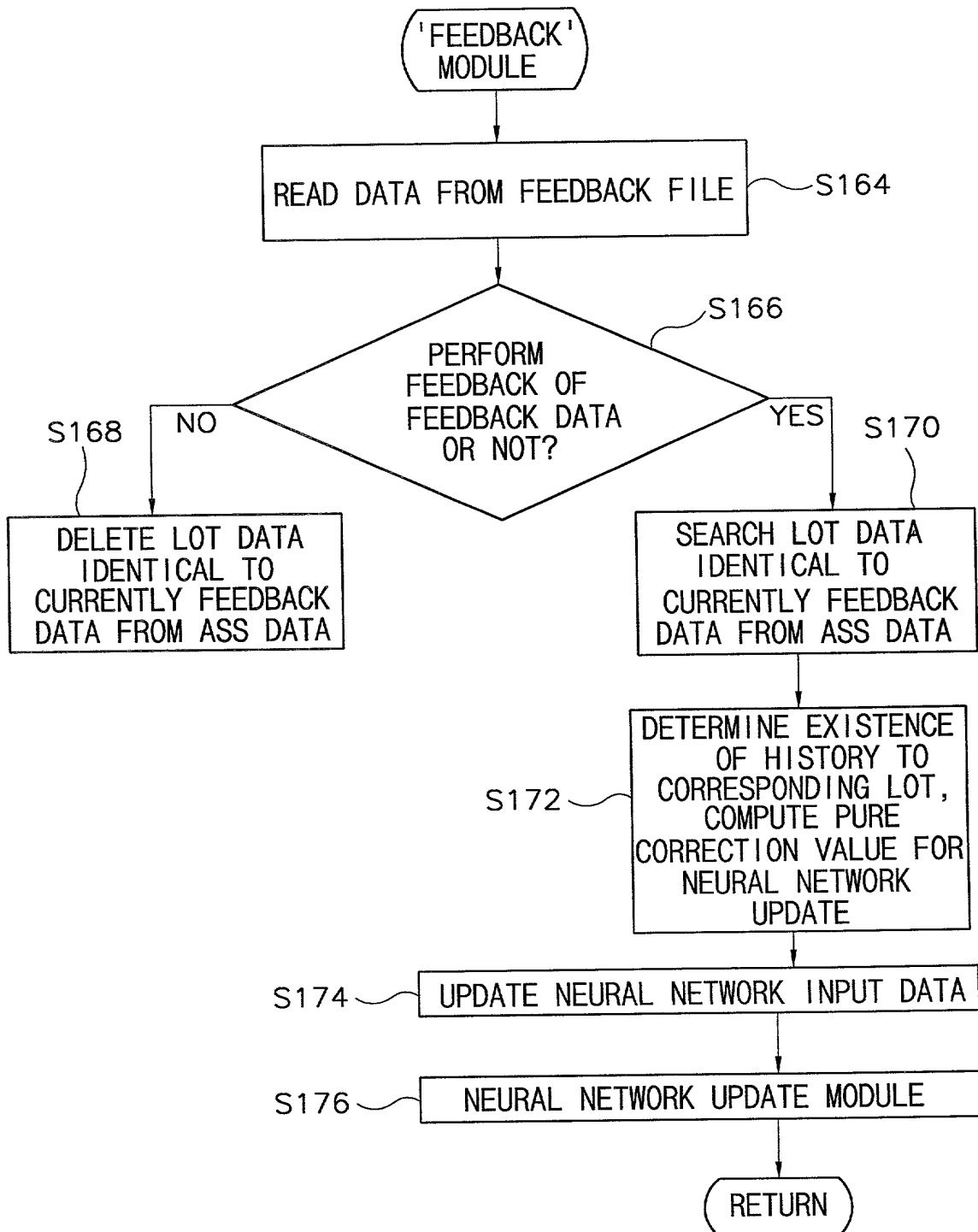


FIG. 17

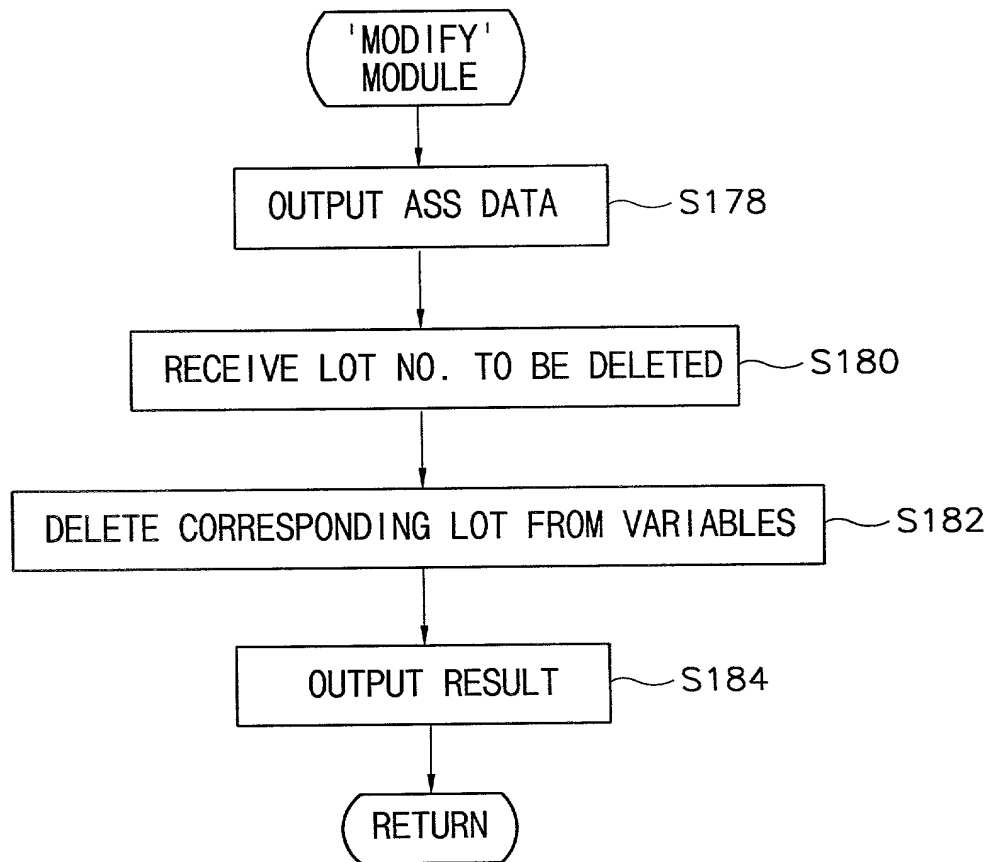


FIG. 18A

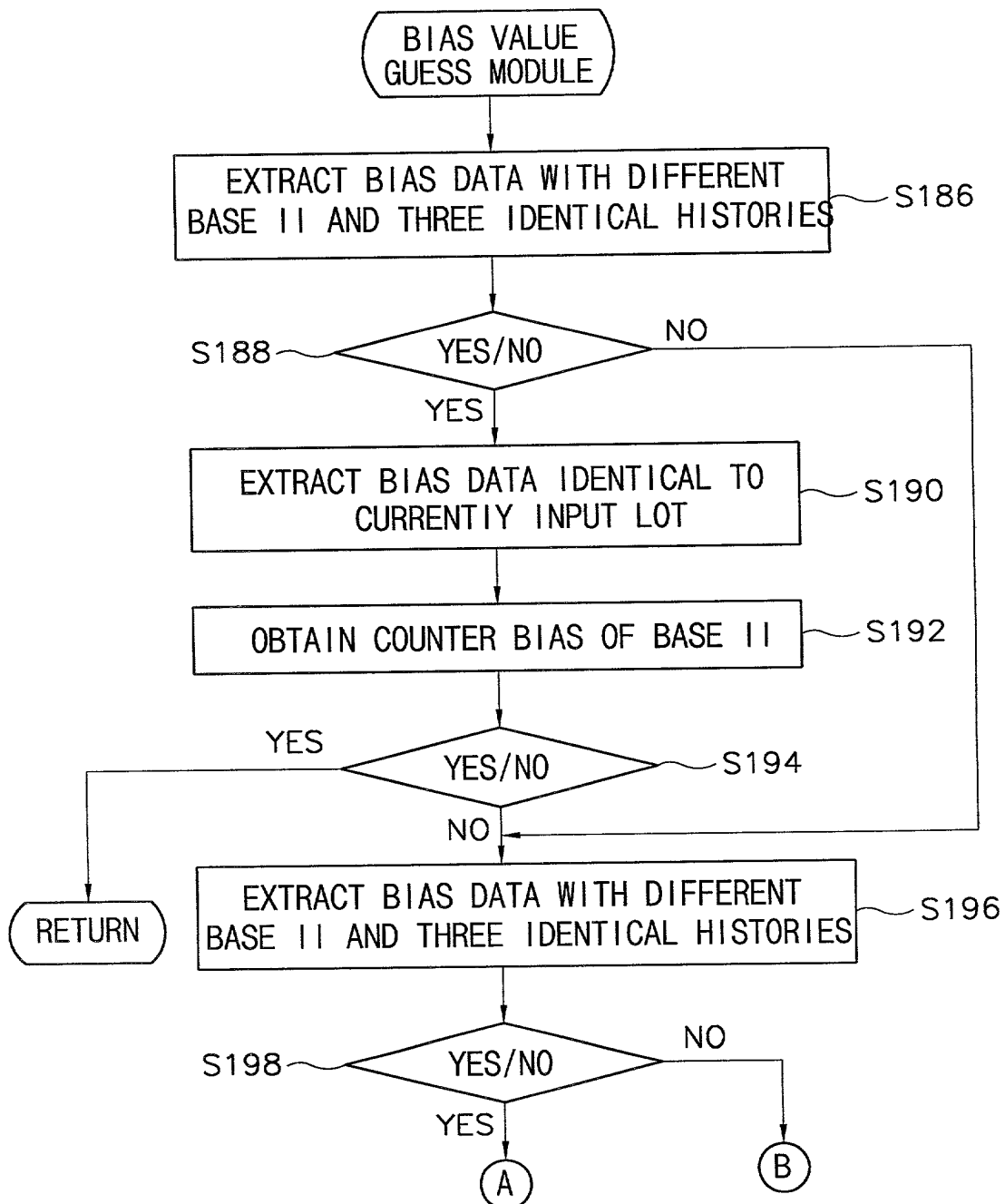


FIG. 18B

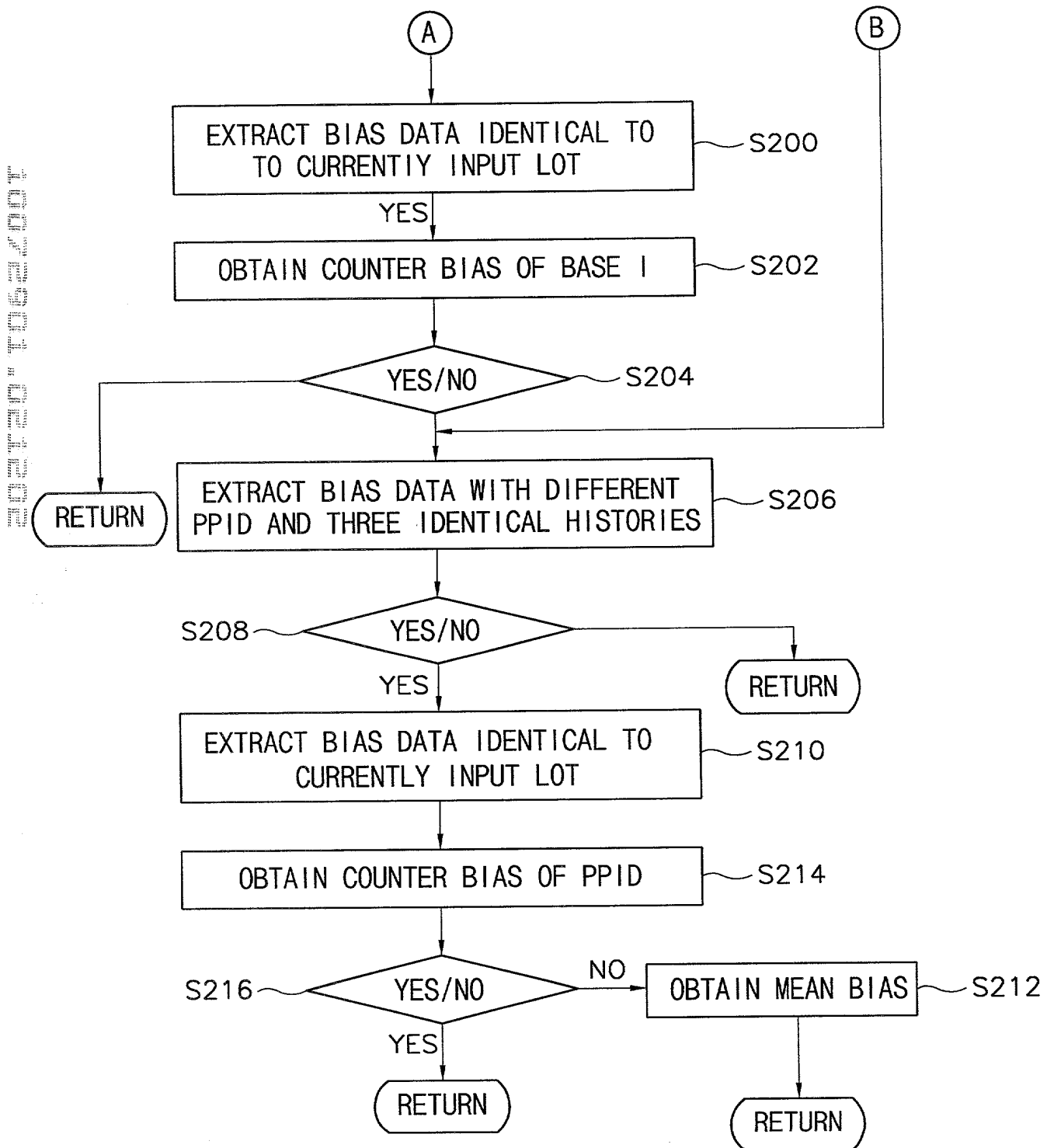


FIG. 19

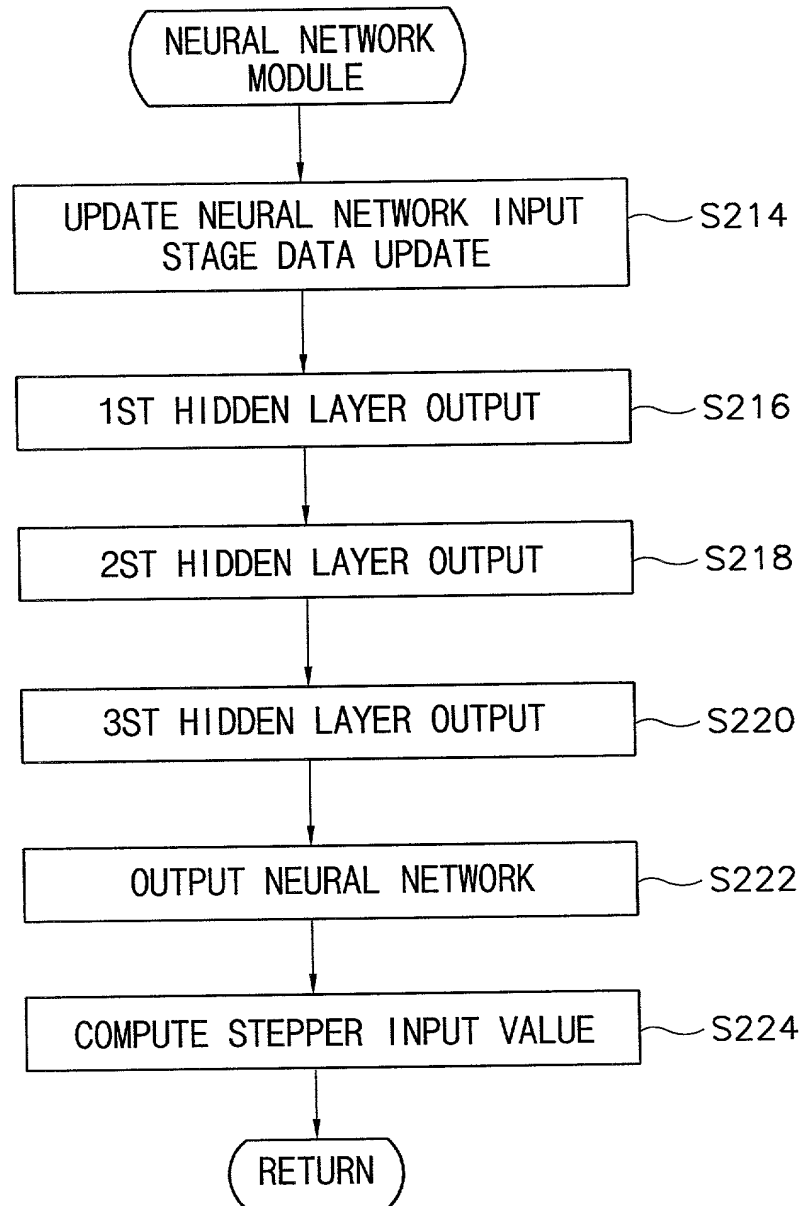


FIG. 20

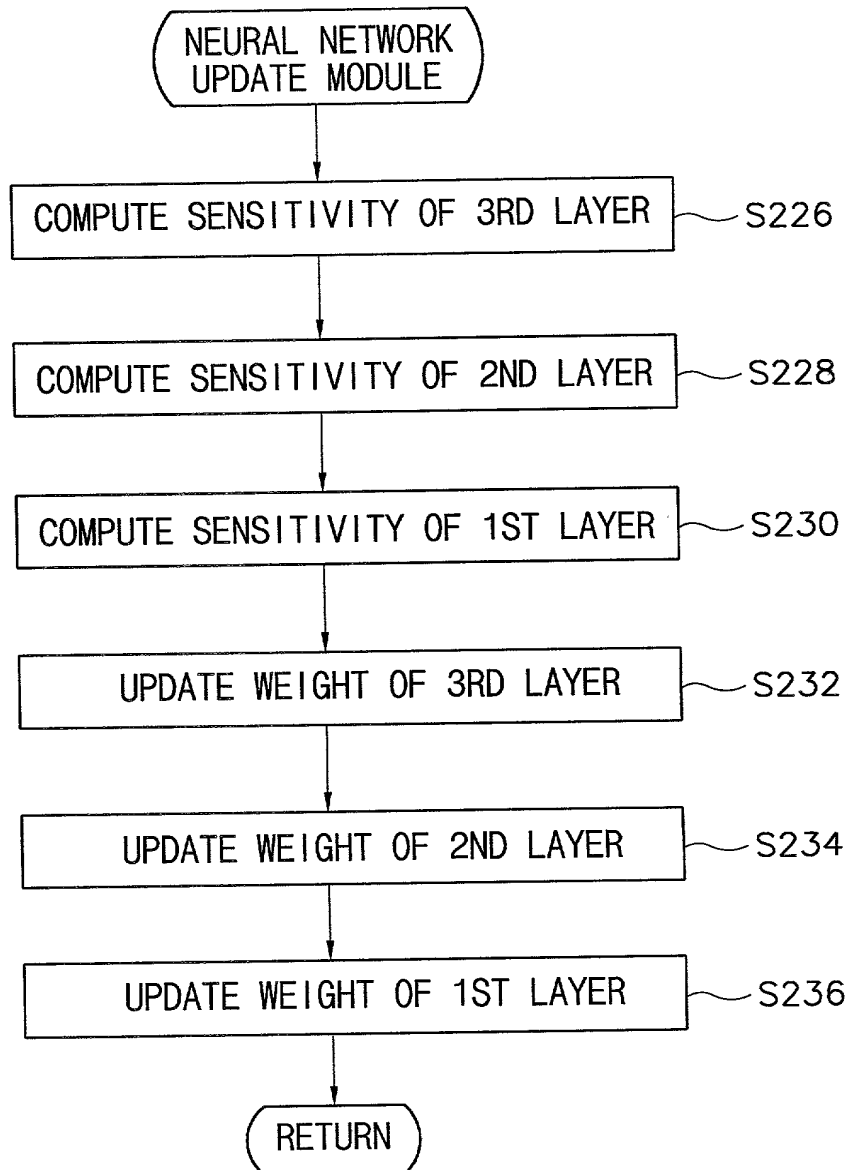
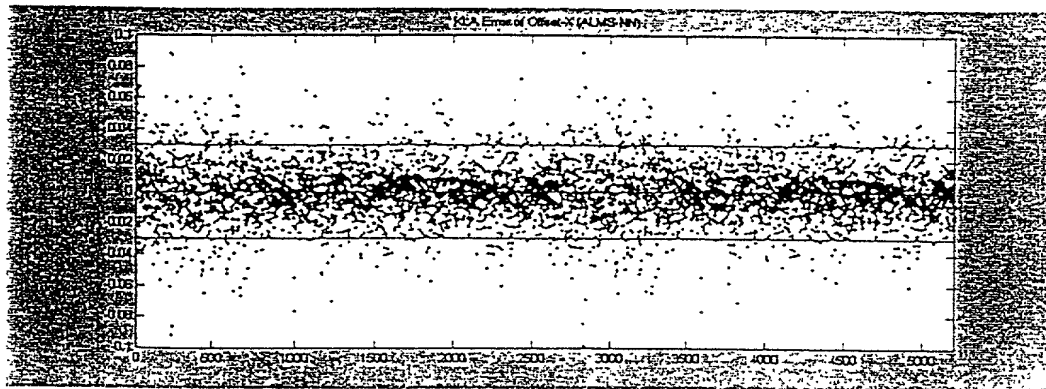
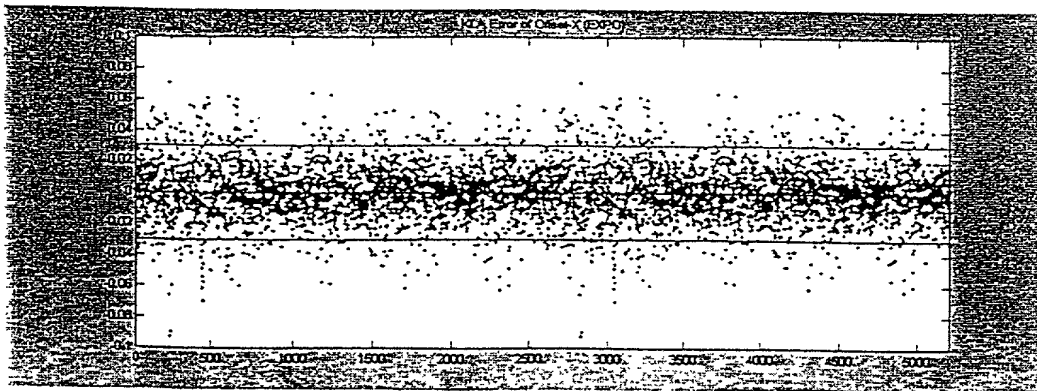


FIG. 21

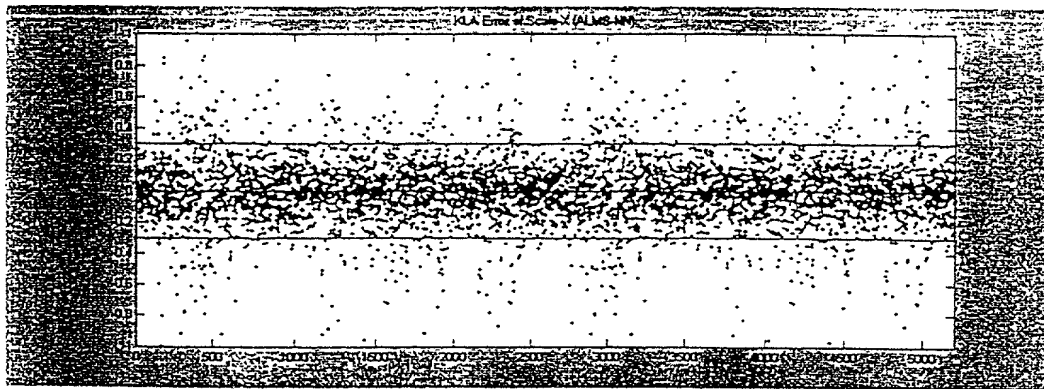


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF OFFSET-X (ALMS-NN)

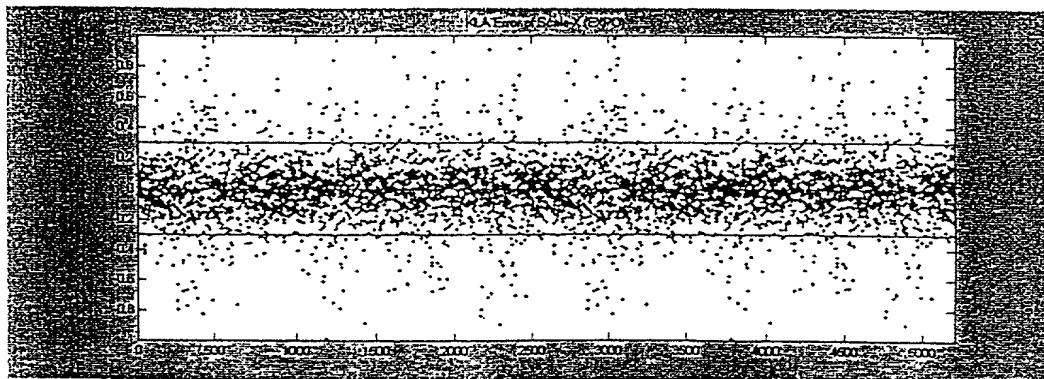


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF OFFSET-X (TRADITIONAL SYSTEM)

FIG. 22

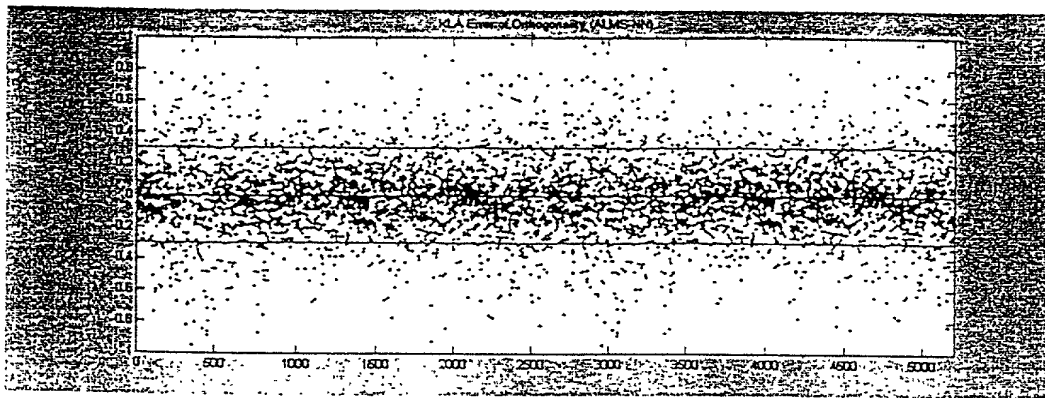


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF SCALE-X (ALMS-NN)

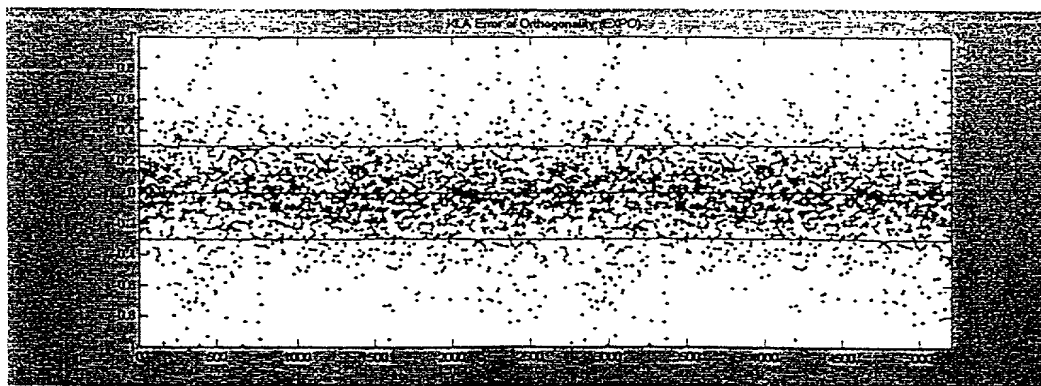


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF SCALE-X (TRADITIONAL SYSTEM)

FIG. 23

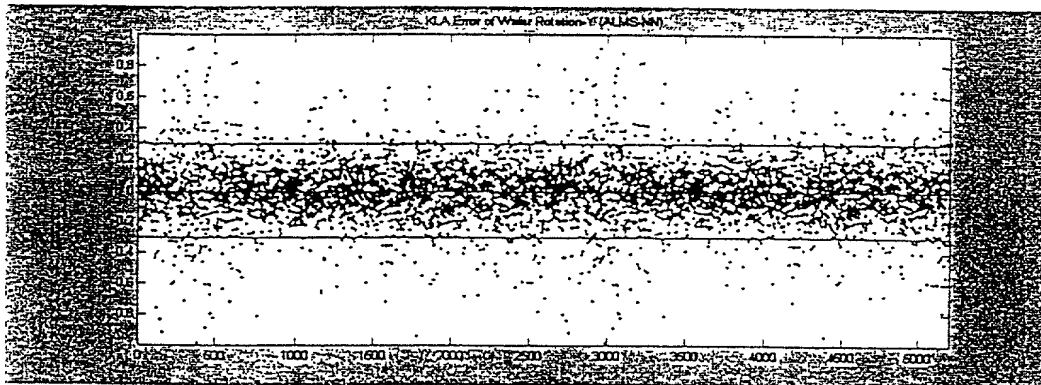


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF ORTHOGONALITY (ALMS-NN)

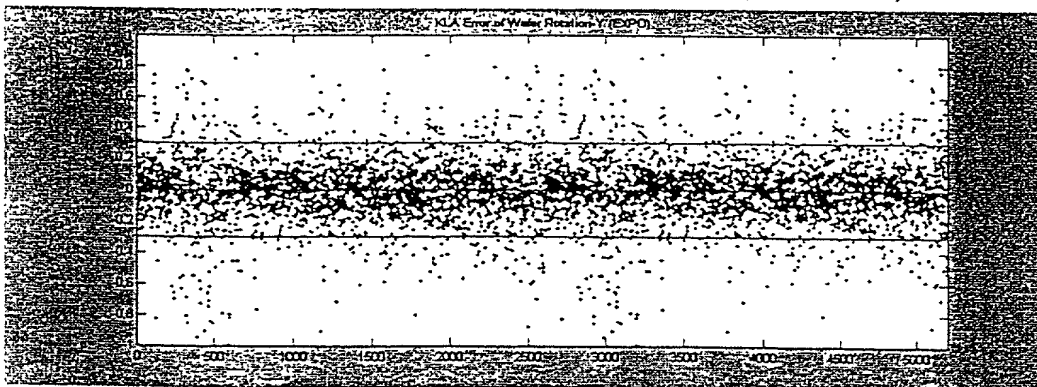


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF ORTHOGONALITY (TRADITIONAL SYSTEM)

FIG. 24

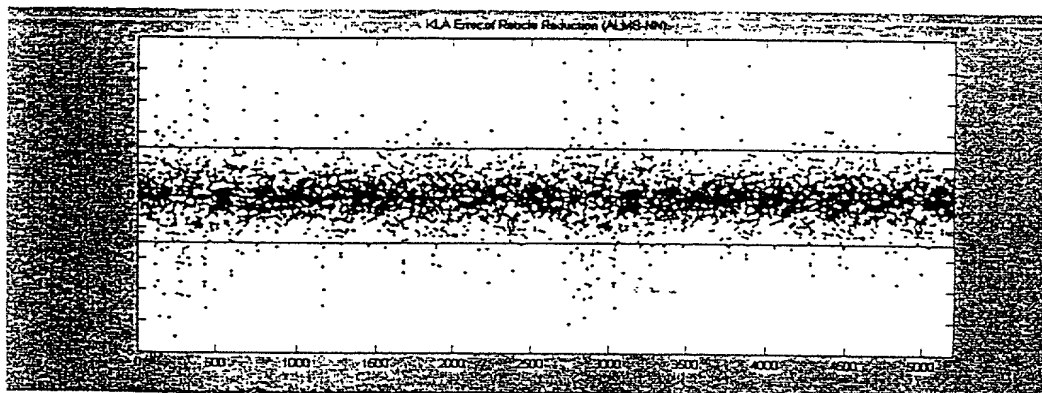


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF WAFER ROTATION-Y (ALMS-NN)

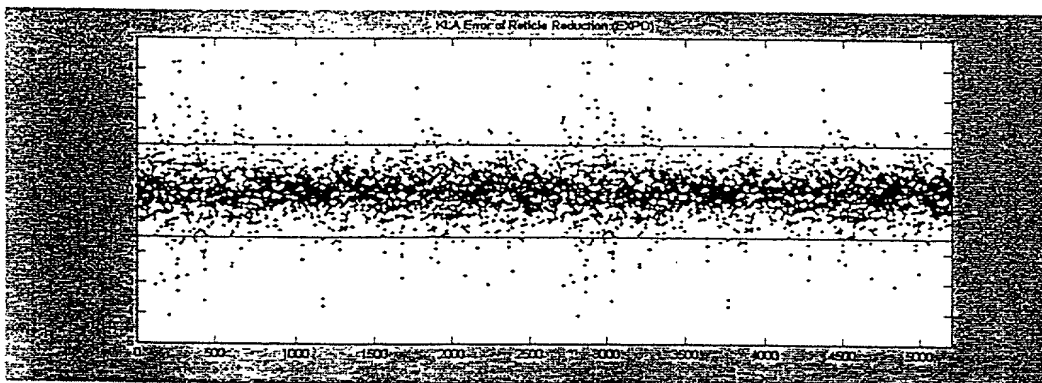


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF WAFER ROTATION-Y (TRADITIONAL SYSTEM)

FIG. 25

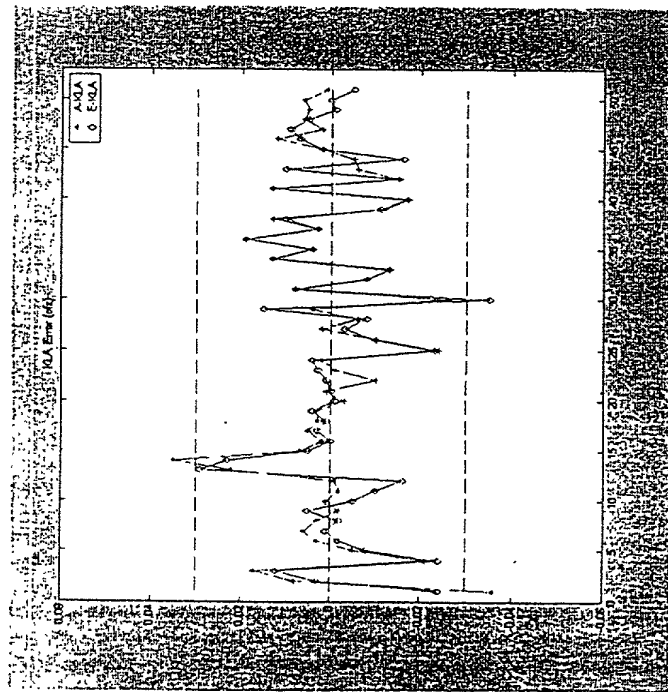


MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF RETICLE REDUCTION (ALMS-NN)



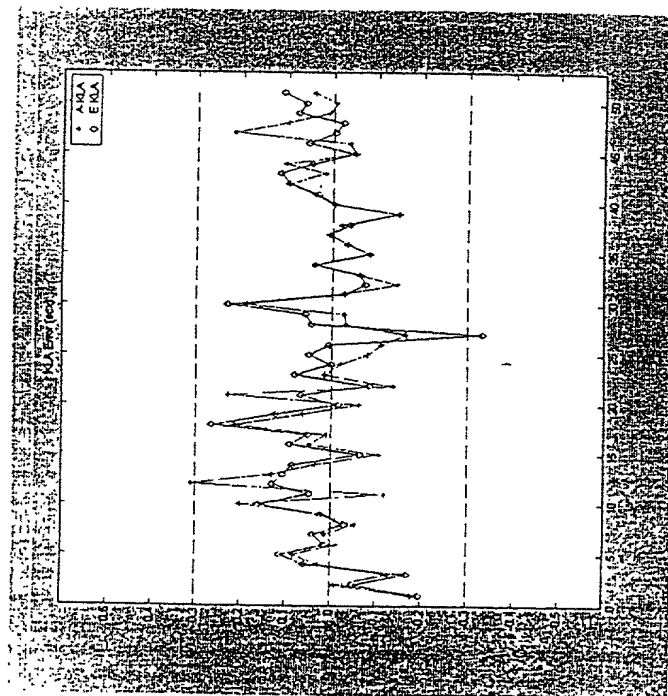
MEASUREMENT ERROR DISTRIBUTION OF MEASURER
INSTRUMENT OF RETICLE REDUCTION (TRADITIONAL SYSTEM)

FIG. 26



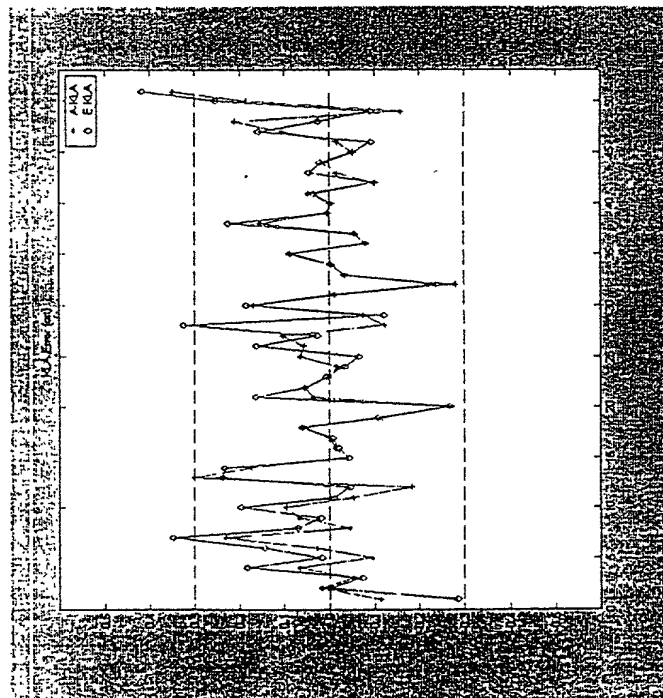
MEASUREMENT ERROR COMPARISON OF MEASURER
INSTRUMENT OF OFFSET-X

FIG. 27



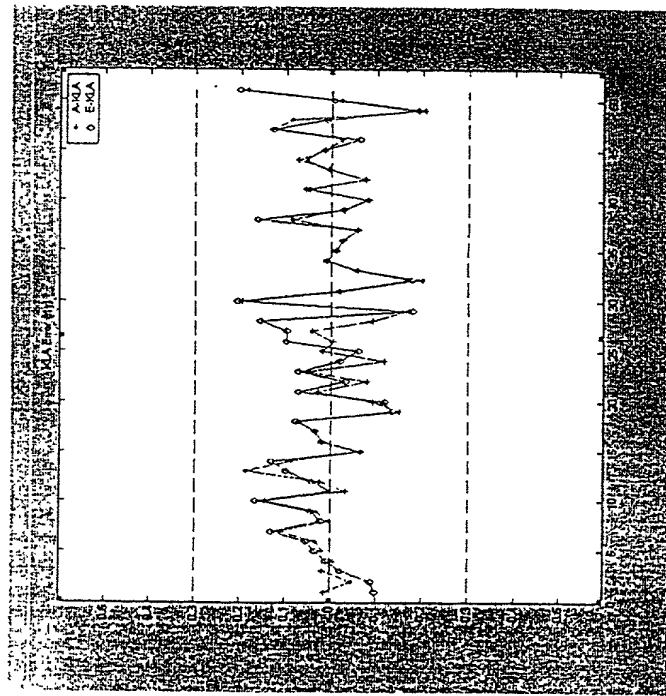
MEASUREMENT ERROR COMPARISON OF MEASURER
INSTRUMENT OF SCALE-X

FIG. 28



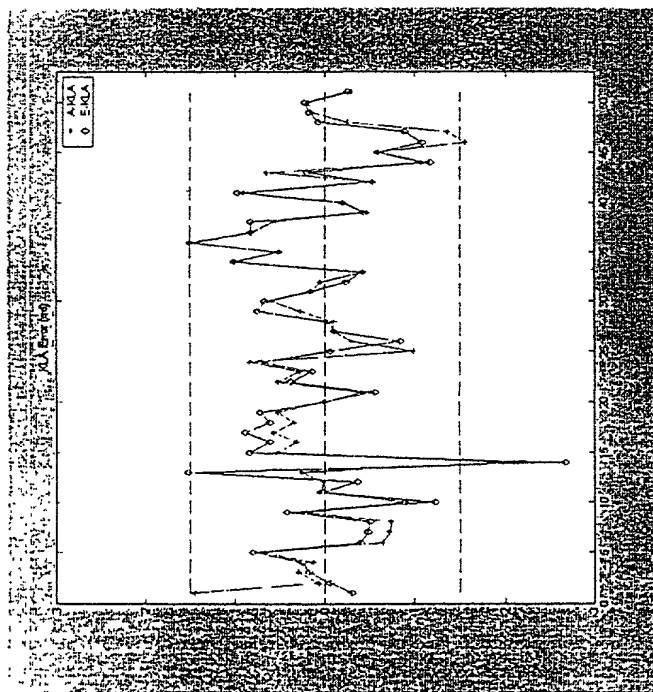
MEASUREMENT ERROR COMPARISON OF MEASURER
INSTRUMENT OF ORTHOGONALITY

FIG. 29



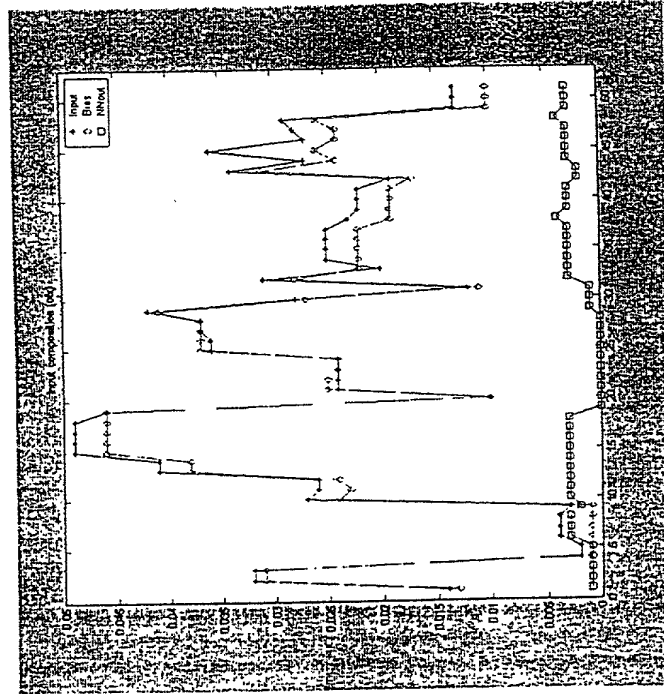
MEASUREMENT ERROR COMPARISON OF MEASURER
INSTRUMENT OF WAFER ROTATION-Y

FIG. 30



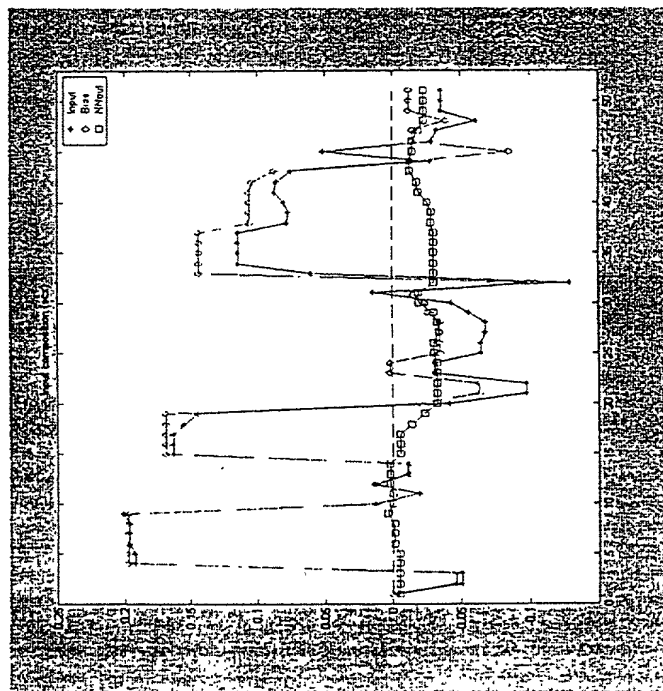
MEASUREMENT ERROR COMPARISON OF MEASURER INSTRUMENT OF RETICLE REDUCTION

FIG. 31



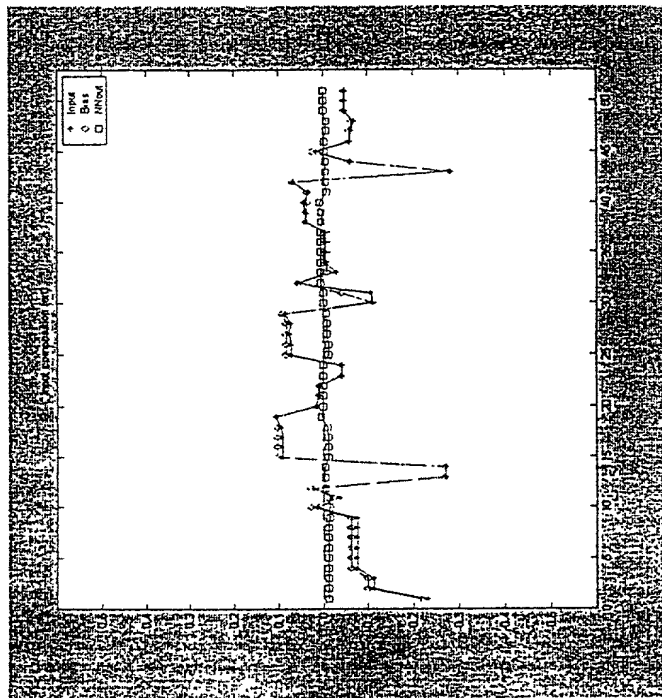
APPARATUS INPUT VALUE FORMAT OF OFFSET-X

FIG. 32



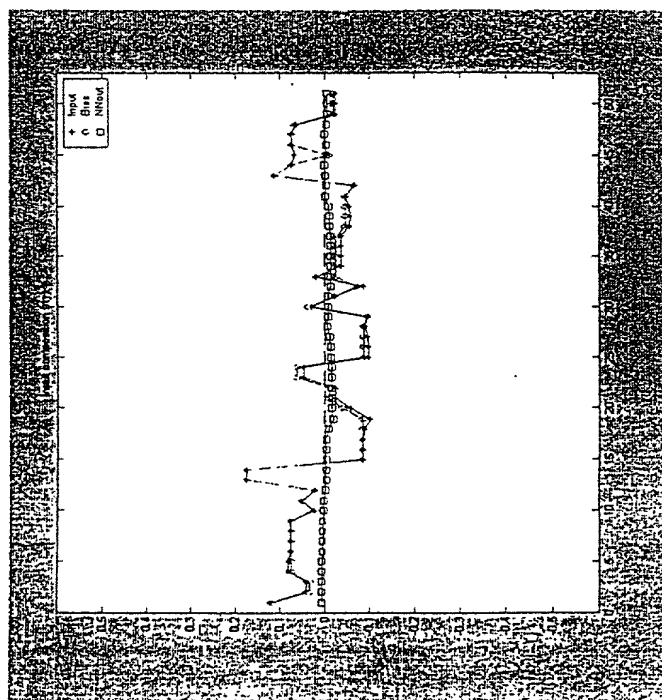
APPARATUS INPUT VALUE FORMAT OF SCALE-X

FIG. 33



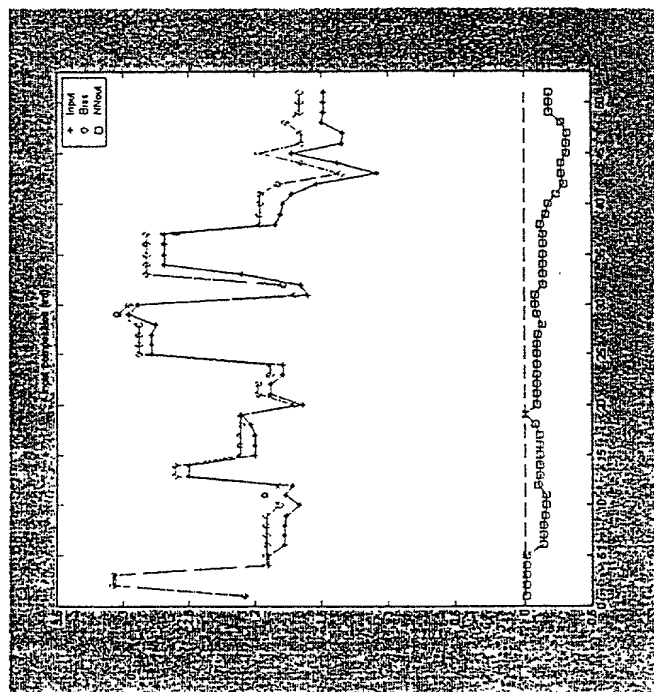
APPARATUS INPUT VALUE FORMAT OF ORTHOGONALITY

FIG. 34



APPARATUS INPUT VALUE FORMAT OF WAFER ROTATION-Y

FIG. 35



APPARATUS INPUT VALUE FORMAT OF RETICLE REDUCTION